

38

Date: Thursday, 8/30/2007 3:51:00 PM
User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : SINGLE MIRROR ASSEMBLY
Job Number : 34356	
Estimate Number : 12277	
P.O. Number :	Part Number : D206558041
This Issue : 8/30/2007 S.O. No. :	Drawing Number : D206-558 / D2065
Prsht Rev. : NC	Project Number : N/A
First Issue : 1 / 1 Type : MACHINED PARTS	Drawing Revision : C / B1
Previous Run : 31208	Material :
Written By :	Due Date : 9/18/2007 Qty: 5 Um: Each
Checked & Approved By : <u>JA 07.08 31</u>	
Comment : Est. F 02-09.19 Re-format; Incorporated D2065 KJ	

Additional Product

Job Number:



Seq. #: Machine Or Operation:

Description :

1.0

DC

DOCUMENT CONTROL



KS 07.09.05

Comment: DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D206-558-041 CHG005

476127

2.0

M304TR0500W035

304 RD Tube .500 x .035W



Comment: Qty.: 1.7500 f(s)/Unit Total : 8.7502 f(s)

304 RD Tube .500 x .035W

304/316 SS Seamless Tube (Ref QSI 017 4.1.1.2) as per Dwg D2065 using punch Jig DT8012

(M04TR0.500W035)

Identify as D2065.

Note: 1 end only

Batch 34287

M206 on w/o

8/30/07 34287

3.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

Punch 1/2" OD x .035" Wall AISI

M/A

4.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Cut to length as per Dwg D2065

Bend as per Dwg D2065 and template D2065T1

Flatten the end on Hydraulic press using Dt 8545

Drill 00.188" holes as per Dwg D2065 and template D2065 T1 and using Dt 8768 Drill Jig.

Deburr.

D2065

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Seq. #:

Machine Or Operation:

Description:

5.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

6.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Black Sandtex (Ref: 4.3.5.7) as per QSI 005 4.3

7.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

8.0

D2011101

Mirror 6"



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)

Mirror 6"

Pick:

Qty Part Number Description Batch

1 D2011-101 Mirror

B 33916

MF

9.0

D2052

Bracket



Comment: Qty.: 2.0000 Each(s)/Unit Total: 10.0000 Each(s)

Bracket

Pick:

Qty Part Number Description Batch

2 D2052 Bracket

B 17216

x 2mx

B 17500 x 0mx

MF

10.0

D2054

Bushing - Delrin



Comment: Qty.: 2.0000 Each(s)/Unit Total: 10.0000 Each(s)

Bushing - Delrin

Pick:

Qty Part Number Description Batch

2 D2054 Bushing

B 16711

x 8mx

B 31219 x 2mx

MF

11.0

D2055

Clamp



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)

Clamp

Pick:

Qty Part Number Description Batch

B 28823

MF

07-11-27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Job Number: 34356

Part Number: D206558041

Job Number:



Seq. #: • Machine Or Operation:

Description :

1 D2055 Clamp

12.0

D2056

Bell Crank Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Bell Crank Assembly

Pick:

Qty Part Number Description Batch

X

1 D2056

Bellcrank

B17049 x 5mx, B ~~31000~~ x 1m MF

13.0

D2057

Plug



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Plug

Pick:

Qty Part Number Description Batch

1 D2057

Plug

B ~~05655~~ x 1m, B 34366 x 5mx MF

MF

14.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Washer

Pick:

Qty Part Number Description Batch

4 AN960JD10

Washer

m104625

MF

15.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Nut

Pick:

Qty Part Number Description Batch

2 MS21042L3

Nut

m104625

MF

or MS21042-3

16.0

MS27039118

Screw



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Screw

Pick:

Qty Part Number Description Batch

2 MS27039-1-18

Screw

m12307

MF 07-11-27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Seq. #:

Machine Or Operation:

Description:

17.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1
Assemble as per Dwg D206-558

mf 07-11-27 (5)

18.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/11/27 (27) (45)

19.0

D2053

Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)
Bracket
Pick: Packing Kit
Qty Part Number Description Batch
1 D2053 Bracket B16710

sf

20.0

D2067

Connector



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)
Connector
Pick: Packing Kit
Qty Part Number Description Batch
1 D2067 Connector B31221

sf

21.0

D2071

Cable Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)
Cable Assembly
Pick: Packing Kit
Qty Part Number Description Batch
1 D2071 Cable B31222

sf

22.0

AN34A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total: 20.0000 Each(s)
Bolt
Pick: Packing Kit
Qty Part Number Description Batch
4 AN3-4A Bolt M103287

sf

11/11/27 50 (3)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Seq. #: . Machine Or Operation:

Description :

23.0

AN5261032R9

Screw



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Screw

Pick: Packing Kit

Qty Part Number

Description

Batch

4 AN526-1032R9 Screw

~~m101189~~

101189

or AN526C1032R9

24.0

MS21042L3

Nut



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Nut

Batch:

~~m104625~~

M107 658

25.0

AN960JD10L

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Washer

Pick: Packing Kit

Qty Part Number

Description

Batch

4 AN960JD10L Washer

M104374

26.0

MS21919DG5

Clamp



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Clamp

Pick: Packing Kit

Qty Part Number

Description

Batch

2 MS21919DG5Clamp

M17864

or MS21919WDG5

27.0

MS354899

Grommet



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Grommet

Pick: Packing Kit

Qty Part Number

Description

Batch

1 MS35489-9 Grommet

M9619

7/1/27 50 (5x)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: D Date: 07/11/28
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Job Number: 34356

Part Number: D206558041

Job Number:



Seq. #:

Machine Or Operation:

Description :

28.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

5 7/11/27 (X5) 1218

29.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

Rev F

[Signature]

AS 07/11/28

(X5)

30.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

2 07/11/28

Job Completion



W 07-11-28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

3.0 CARGO MIRROR INSTALLATION

Install the Cargo Mirror as follows:

1. Install D206-558-041/-043 cargo mirror assembly using AN3-4A bolts and AN960JD10L washers. Pickup existing anchor nuts in 4 places.
2. Install D2067 connector onto D2056 bellcrank assembly to locate hole for MS35489-9 grommet. With the mirror in the deployed position, mark and drill $\varnothing 0.125"$ (3.2mm) hole in landing light window panel where the grommet should be located. Open pilot hole to $\varnothing 0.563"$ (14.3mm). Install grommet.
3. Install D2053 bracket using AN526-1032R9 screws. Pickup on existing anchor nuts.
4. Position D2071 cable as shown. Install MS21919DG5 clamps using AN526-1032R9 screws where required. Pickup existing rivnuts or anchor nuts if available.
5. Install D2071 control cable using D2067 connector. Connector should rotate freely in bellcrank when MS21042-3 nut is torqued and cable clamped

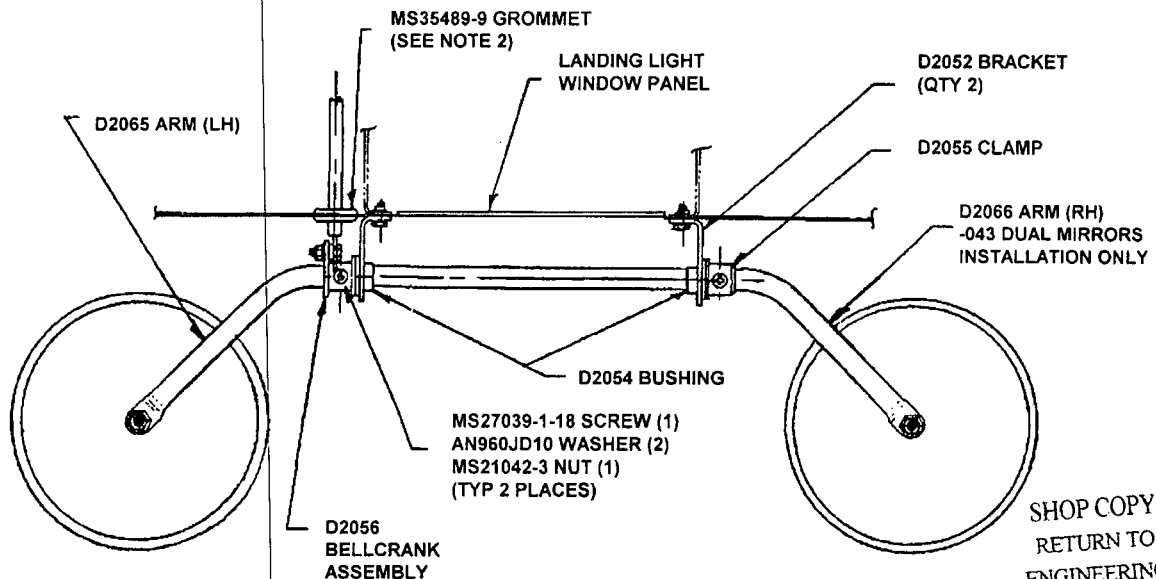


Figure 2: – View A: Looking Aft.
(D206-558-043 Mirror Shown)

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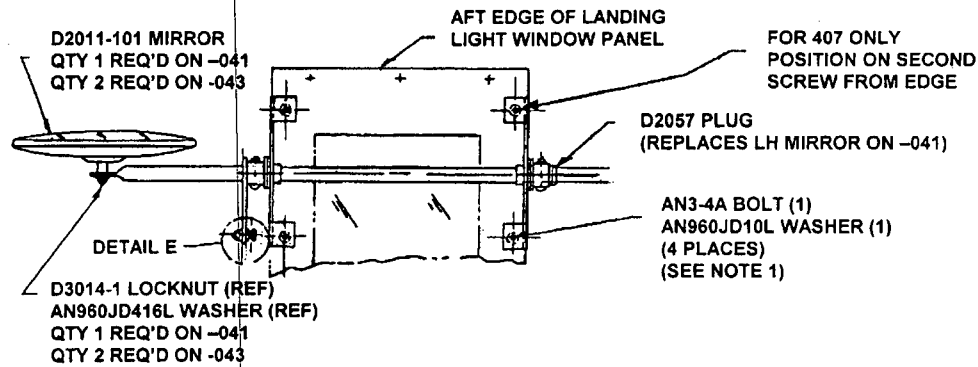


Figure 3: - View C: Looking Down on Mirror Installation
(D206-558-041 Mirror Shown)

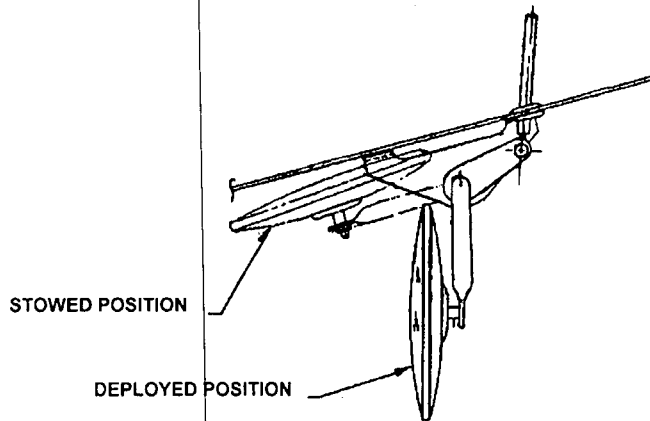


Figure 4: - Detail D: Looking from Side on Mirror Installation
(D206-558-041/-043 Mirror Shown)

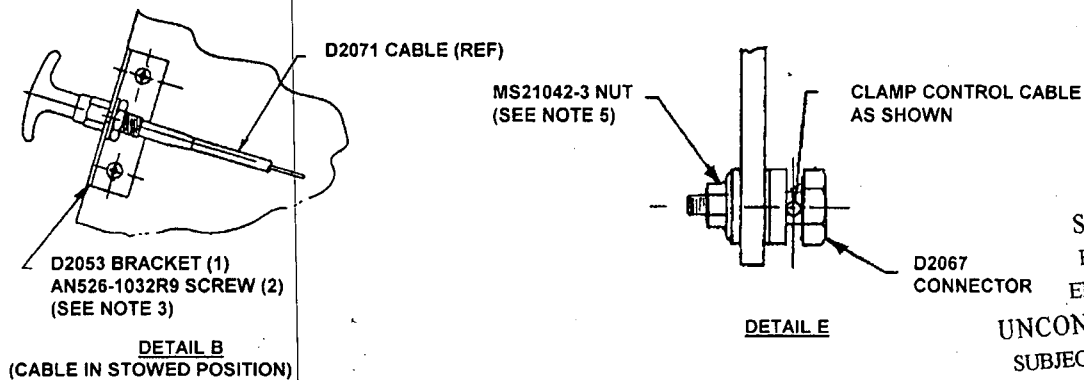


Figure 5: - Details B and E on Mirror Installation
(D206-558-041/-043 Mirror Shown)

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4.0 WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D206-558-041 Bell 206A/B/L/L1/L3/L4 Bell 407	2.4 lb 1.09 Kg	+5.0 in +0.13 m	+12.0 in-lb +0.14 m-Kg	+14.8 in +0.38 m	+35.5 in-lb +0.41 m-Kg
D206-558-043 Bell 206A/B/L/L1/L3/L4 Bell 407	3.0 lb 1.36 Kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-Kg	+14.8 in +0.38 m	+44.4 in-lb +0.52 m-Kg

5.0 WEIGHT AND BALANCE

Qty -041	Qty -043	Part Number	Description
X		D206-558-041	SINGLE CARGO MIRROR ASSEMBLY
	X	D206-558-043	DUAL CARGO MIRROR ASSEMBLY
1	2	D3014-1	* LOCKNUT
1	1	D2071	CABLE ASSEMBLY
2	2	D2054	BUSHING
1	1	D2067	CONNECTOR
	1	D2066	ARM
1		D2065	ARM
1		D2057	PLUG
1	1	D2056	BELLCRANK ASSEMBLY
1	1	D2055	CLAMP
1	1	D2053	BRACKET
2	2	D2052	BRACKET
1	2	D2011-101	MIRROR ASSEMBLY
4	4	AN3-4A	BOLT
4	4	AN526-1032R9	SCREW
1	2	AN960JD416L	* WASHER
4	4	AN960JD10	WASHER
6	6	AN960JD10L	WASHER
3	3	MS21042-3	NUT (or MS21042L3)
2	2	MS21919DG5	CLAMP
2	2	MS27039-1-18	SCREW
1	1	MS35489-9	GROMMET

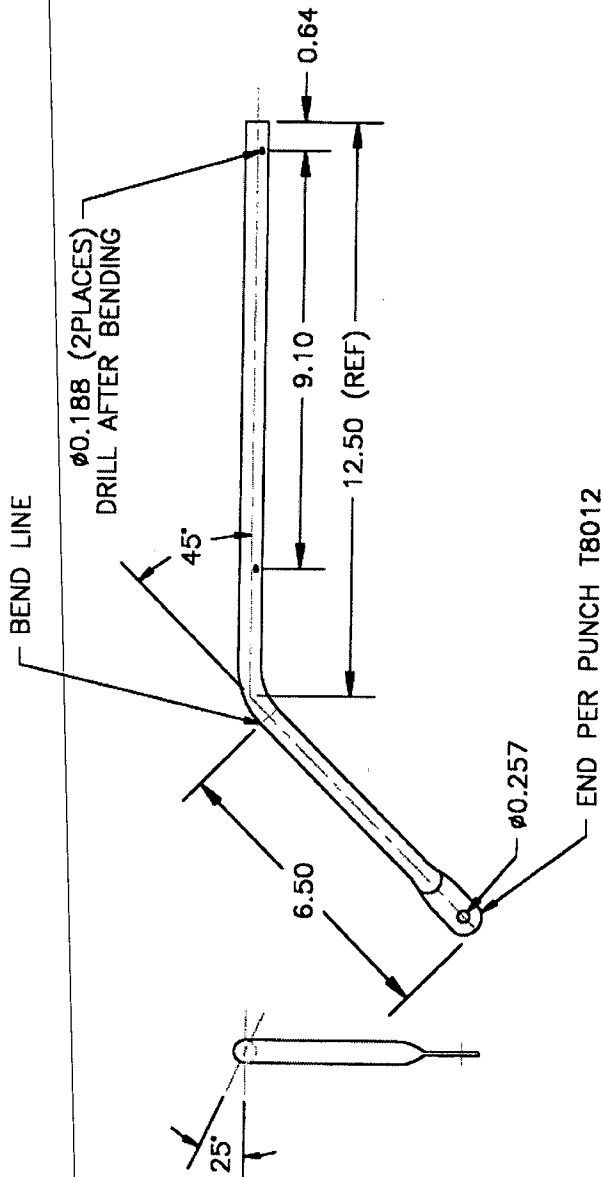
* INCLUDED AS PART OF D2011-101 MIRROR ASSEMBLY

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DESIGN	B WILLIAMS	DRAWN BY	B WILLIAMS	DART AEROSPACE LTD VICTORIA INTERNATIONAL AIRPORT, CANADA	REV. B
CHECKED	BW	APPROVED	[Signature]	DRAWING NO. D2065	SHEET 1 OF 1
DATE	92.03.12	TITLE	ARM	SCALE	1:4
B	96.02.06	RE-DESIGN			
Bi	CPA 92.03.25	ADD FINISH			

RELEASED
96/11/14 BW



D2065 CUT LENGTH 19.5

MATERIAL: 304/316 SS 1/2 OD X 0.035 WALL
FINISH: POWDER COAT BLACK SANDTEX (4.3.5.7) PER
DART QST QSS 4.3 (B)

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